

REMARKS

Claims 1-22 are all the claims pending in the application. This Amendment amends claims 1, 2, 5-8, 12, and 13, adds claims 14-22, and addresses each point of rejection raised by the Examiner. Favorable reconsideration is respectfully requested.

As an editorial matter, Applicant has broadened claims 2 and 13, moving the elasticity applying means to claims 17 and 22, respectively. Additionally, Applicant has amended description of structure in claims 1, 6, 7, 8, 12, and 13.

With regard to the combination of U.S. Patent 6,394,137 to Kikuchi *et al.* ("Kikuchi") with U.S. Patent 6,220,690 to Wachi ("Wachi"), Applicant again submits that the Examiner is engaging in hindsight. The diaphragm of Wachi functions primarily as the plunger of a pump, which is completely irrelevant to membrane valves in general, and Kikuchi in particular. The diaphragm of Wachi has no bending portion in a normal state, as shown in Fig. 6. The "bent" state is only the result of the plunger action on the diaphragm in the pump, whereas Kikuchi discloses a valve. The Examiner's rationale for modifying Kikuchi "for the purpose of allowing the membrane to stretch out without breaking" is irrelevant to Kikuchi, which already utilizes elastic material for the valve body. More importantly, the features relied on by the Examiner in Wachi are features of a pump -- not a membrane valve. Modifying Kikuchi in the manner suggested by the Examiner would appear to undermine the displacement of the valve body contemplated in Kikuchi which is driven by changes in differential pressure across the valve (*see* Kikuchi Fig. 3).

Similarly, the combination of Kikuchi with U.S. Patent 4,817,503 to Yamada ("Yamada") is also an exercise in hindsight. Yamada teaches to rib and outer surface of the body of a pressure chamber so that, among other things, pressure resistance in the chamber can be increased, while the amount of material used for form the chamber is reduced *See* Yamada column. 4, line 13 to column 5, line 12. While Kikuchi does include dual diaphragms 8, no suggestion is made of adding ribs to the diaphragms. Adding ribs to a structural wall does not suggest adding ribs to a valve body. Again, Applicant submits that the Examiner is combining

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references not based on the suggestions of combinability in the references, but rather, by reinterpreting the references based on the claimed invention.

The Examiner is requested to reconsider the references for what they teach, absent the disclosures of the present application. Reconsideration and withdrawal of the rejections under 35 U.S.C. § 103(a) are requested.

This Amendment includes new dependent claims 14-16 and 18-21. No new matter is added. Entry and consideration of these new claims on the merits are requested.

In view of the above, reconsideration of this application is now believed to be in order, and such action is hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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